

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

## CLAIMS

1. A carburetor for an internal combustion engine, comprising:  
an intake pip having an inner wall, the intake pipe supplying a fuel and an  
air for the internal combustion engine;  
5 a throttle valve disposed inside the intake pipe; and  
an annular venturi tube disposed at an upstream side or a downstream side of  
the throttle valve inside the intake pipe, the annular venturi tube being made of an  
annular body defining an inside air passage and an outside air passage inside an  
inner wall of the intake pipe, the annular body having a fuel discharging portion  
10 formed at an inner peripheral side thereof so to atomize the fuel by an air flow.
2. A carburetor for an internal combustion engine according to claim 1, in which  
the fuel discharging portion has a fine annular slit formed on the inner peripheral  
side of the annular body of the annular venturi tube.  
15
3. A carburetor for an internal combustion engine according to claim 2, in which  
the fuel discharging portion has four or more pores formed on the inner peripheral  
side of the annular body of the annular venturi tube.
- 20 4. A carburetor for an internal combustion engine according to claim 1, in which  
the annular body of the annular venturi tube is made of a circular annular body.
5. A carburetor for an internal combustion engine according to claim 1, in which  
the annular body of the annular venturi tube is made of an elliptical or oval annular  
25 body.

6. A carburetor for an internal combustion engine according to claim 1, in which the fuel is supplied to annular venturi tube from a plurality of points at a side of the intake pipe.

5

7. A carburetor for an internal combustion engine according to claim 1, in which the fuel discharging portion has a fine annular slit formed on the inner peripheral side of the annular body of the annular venturi tube, the annular venturi tube having a plurality of pores formed inside thereof so as to guide the fuel to the fine annular slit.

10

8. A carburetor for an internal combustion engine according to claim 1, in which an area ratio of the inside air passage to the outside air passage of the annular venturi tube divided inside the intake pipe is set within a range of  $55 \pm 20\%$ .

15

9. A carburetor for an internal combustion engine according to claim 1, in which the annular venturi tube is located inside of the intake pipe so as to be shifted from a center of the intake pipe toward the inner wall of the intake pipe.

20

10. A carburetor for an internal combustion engine according to claim 1, in which the annular body of the annular venturi tube has an upstream side and a downstream side, while the upstream side having an inner diameter sharply decreased and the downstream side having an inner diameter gradually increased compared with a diameter change of the upstream side.

25

11. A carburetor for an internal combustion engine according to claim 1, further comprising an annular center venturi tube disposed at an inside of an inner wall of the annular venturi tube, the annular center venturi tube defining an inside air passage and an outside air passage inside the annular venturi tube, the annular center venturi tube having an annular body formed into a length that extends a length of the annular venturi tube in an air flow direction on both sides, the annular body of the annular center venturi tube having a fuel discharging portion formed at an inner peripheral side thereof so to atomize the fuel by an air flow.
12. A carburetor for an internal combustion engine according to claim 11, in which the fuel discharging portion of the annular center venturi tube has a fine annular slit formed on the inner peripheral side of the annular body thereof.
13. A carburetor for an internal combustion engine according to claim 11, in which the fuel discharging portion of the annular center venturi tube has four or more pores formed on the inner peripheral side of the annular body thereof.
14. A carburetor for an internal combustion engine according to claim 11, in which the fuel discharging portion of the annular center venturi tube has a fine annular slit formed on the inner peripheral side of the annular body thereof, the annular center venturi tube having a plurality of pores formed inside thereof so as to guide the fuel to the fine annular slit thereof.
15. A carburetor for an internal combustion engine according to claim 11, in which the annular body of the annular center venturi tube is made of a circular annular

body.

16. A carburetor for an internal combustion engine according to claim 11, in which an area ratio of the inside air passage to the outside air passage of the annular center venturi tube divided inside the annular venturi tube is set within a range of  $25 \pm 20\%$ .
17. A carburetor for an internal combustion engine according to claim 11, in which the fuel is supplied to annular venturi tube from one or more points at a side of the intake pipe.
18. A carburetor for an internal combustion engine according to claim 11, in which the annular center venturi tube is located inside of the intake pipe so as to be shifted from a center of the intake pipe toward the inner wall of the intake pipe in accordance with a shift in location of the annular venturi tube.
19. A carburetor for an internal combustion engine according to claim 11, in which the annular body of the annular center venturi tube has an upstream side and a downstream side, while the upstream side having an inner diameter sharply decreased and the downstream side having an inner diameter gradually increased compared with a diameter change of the upstream side.
20. A carburetor for an internal combustion engine according to claim 11, in which the annular body of the annular center venturi tube has an upstream side and a downstream side, while the upstream side having an outer diameter sharply

increased and the downstream side having an outer diameter gradually decreased compared with a diameter change of the upstream side in relation to the fuel discharging portion of the annular venturi tube.